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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/961,425	09/25/2001	Akio Nakashima	2165.11	6616

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EXAMINER

DICUS, TAMRA

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 12/29/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/961,425

Applicant(s)

NAKASHIMA ET AL.

Examiner

Tamra L. Dicus

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-- The MAILING DATE of this communication appears on the cover sheet with the correspond nce address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

The rejections are withdrawn from the last prior Office Action.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being obvious over USPN 6,228,804 to Nakashima et al. in view of USPN 6,416,853 to Nakashima et al.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this

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rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

1. Claims 1-9 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-15, and 19-21 of U.S. Patent No. 6,228,804 to Nakashima et al. in view of USPN 6,416,853 to Nakashima et al.

4. Although the conflicting claims are not identical, they are not patentable distinct from each other because the present claims differ only in the recitation of defining similar terms such as porous resin layer, first colored layer, water-repellent resin layer, image layers forming pattern. The equivalents are listed below before the aforementioned terms which the Examiner

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has included in parenthesis. Such naming the same terms differently does not change the invention.

Nakashima '804 teaches various multilayered structures of color-changing materials. Nakashima '804's color-changing materials are functional equivalents to a water-metachromatic laminate as the color-changing material of Nakashima '804 is brought into contact with water at col. 16, lines 25-60. The features of the invention of Nakashima '804 reside in that a thermochromic layer is formed on a substrate (support) and a porous layer containing a low-refractive-index pigment (porous resin layer) is superposed on each other, a color-change material/layer (first colored layer) is provided on the thermochromic layer and substrate. Nakashima '804 features various structural arrangements and teaches various functionalities for such a thermochromatic/water-metachromatic laminate. A thermochromic image pattern layer (colored layer) may be formed on the thermochromic/porous resin layer, a porous image pattern layer may be formed on the thermochromic layer, and either a thermochromic layer and/or a porous layer are suitable as an image pattern layer which may overly the color-changing layer. This teaching therefore provides use of a second colored layer as in instant claim 4. Nakashima '804 teaches image pattern layer may comprise a star pattern (see patented claim 8, and col. 21, line 20), and may be a variety of designs/patterns/symbols/figures/dots. All indicia and images of claims 2 and 5 are therefore taught. Nakashima '804 teaches an effective substrate of cloths such as woven fabrics, knit fabrics, braiding, and nonwoven fabrics, papers etc. The pigments comprises urethane and silicic acid (instant claim 6). See Examples 5 and 16, col. 4, lines 14-68, col. 8, line 65-col. 9, line 2, col. 10, lines 1-50, Figure 5, and col. 11, lines 10-15. The characteristics of the laminate are taught in all the examples, see 3 and 4. At col. 6,

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lines 8-11, the porous resin layer is added from 1 to 30 g/m². Additionally regarding the use of a second color layer, mere duplication of parts is not germane to patentability, especially since Nakashima '804 teaches the compatibility of the layers.

Nakashima '804 does not provide for a water-repellant layer within or over a porous layer. However, Nakashima '853 teaches a color-changing laminate providing a water-repellant layer in conjunction with a porous layer. At col. 7, lines 44-52, Nakashima '853 suggestively explains when the porous layer shows poor film-forming properties due to the less smooth cloth surface or excessive penetration of an ink, etc. into the cloth, the film-forming properties of the porous layer can be improved by, for example, making the cloth water-repellent. Therefore, it would have been obvious to one of ordinary skill in the art to modify the laminate of Nakashima '804 to provide a water-repellent layer because Nakashima '853 provides for this use in order to improve film-forming properties of a porous layer which effects penetration of ink.

Response to Arguments

5. Applicant's arguments with respect to claims 1-9 have been considered but are moot in view of the new ground(s) of rejection. Nakashima '804 is still relied upon in this rejection because Nakashima teaches color-changing laminates which turn discolored/translucent, which is the same effect as described in Applicant's specification, irrespective of the term Applicant currently claims it as.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamra L. Dicus whose telephone number is (703) 305-3809. The examiner can normally be reached on Monday-Friday, 7:00-4:30 p.m., alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on (703) 308-0449. The fax phone number for the organization where this application or proceeding is assigned is (703) 746-8329.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Tamra L. Dicus
Examiner
Art Unit 1774

December 19, 2003

CONTROL UNIT
SUPERVISOR
Cynthia Kelly
12/19/03